AMERICAN ANNALS OF THE DEAF

FOUNDED 1847

Official Organ

Conference of Executives of American Schools for the Deaf

FOUNDED 1868

Convention of American Instructors of the Deaf

FOUNDED 1850

POWRIE VAUX DOCTOR, Ph.D.
Editor

WILLIAM C. STOKOE, JR., Ph.D.
Associate Editor

Under the Direction of the Executive Committee of the Conference

EDMUND B. BOATNER *Chairman*	Connecticut, 1957
MARSHALL S. HESTER	New Mexico, 1957
WILLIAM J. MCCLURE	Tennessee, 1957
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HOWARD M. QUIGLEY	Minnesota, 1957
HUGO F. SCHUNHOFF	West Virginia, 1958
EDWARD M. TWITMYER	Pennsylvania, 1958
ARCHIE F. LEARD	Saskatchewan, Canada, 1959
CARL F. SMITH	North Dakota, 1959

SEPTEMBER, 1956

Volume 101 **Number 4**

THE CONFERENCE OF EXECUTIVES OF AMERICAN SCHOOLS FOR THE DEAF

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THE CONFERENCE OF EXECUTIVES OF AMERICAN SCHOOLS FOR THE DEAF, originally the Conference of Superintendents and Principals of American Schools for the Deaf, was founded in 1868 and subsequently incorporated under the laws of the State of Maryland in 1931. The Conference is an organization of the executive heads of schools for the deaf in the United States and Canada, and has for its object "to promote the management and operation of schools for the deaf along the broadest and most effective lines and to further and promote the general welfare of the deaf."

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THE CONVENTION OF AMERICAN INSTRUCTORS OF THE DEAF, founded in 1850 and incorporated by act of Congress in 1897, is an organization of educators of the deaf in the United States and Canada with the general object of "promotion of the education of the deaf on the broadest, most advanced, and practical lines," and for that purpose "to secure the harmonious union in the organization, of all persons actually engaged in educating the deaf in America."

THE TWENTY-EIGHTH REGULAR MEETING OF THE CONFERENCE OF EXECUTIVES OF AMERICAN SCHOOLS FOR THE DEAF, MISSISSIPPI SCHOOL FOR THE DEAF, JACKSON, MISSISSIPPI. APRIL 2–5, 1956.

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AMERICAN ANNALS OF THE DEAF

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MEETING OF THE CONVENTION OF AMERICAN INSTRUCTORS OF THE DEAF

The thirty-eighth regular meeting of the Convention of American Instructors of the Deaf will be held at the Tennessee School for the Deaf, Knoxville, Tennessee, June 23–28, 1957.

James H. Galloway, President
Sister Anna-Rose, Secretary

OFFICIAL CALL FOR THE TWENTY-NINTH REGULAR MEETING OF THE CONFERENCE OF EXECUTIVES OF AMERICAN SCHOOLS FOR THE DEAF

The twenty-ninth regular meeting of the Conference of Executives of American Schools for the Deaf will be held at the Tennessee School for the Deaf, Knoxville, Tennessee, on Saturday, June 22, 1957, for the purpose of conducting the necessary business, including reports of the officers and chairmen of standing committees, and the election of executive committee members, and such other business as may properly come before the meeting.

Edmund B. Boatner, President
William J. McClure, Secretary

I.C.E.C. SOUTHWEST REGIONAL MEETING

The regular Southwest Regional Meeting of the International Council for Exceptional Children will meet at the Westward Ho Hotel in Phoenix, Arizona, November 7–10, 1956. Edward W. Tillinghast, Superintendent of the Arizona School for the Deaf, will have charge of the program on the education of the deaf.

I.C.E.C. MEETS IN PITTSBURGH

The annual meeting of the International Council for Exceptional Children will meet at the Hotel William Penn in Pittsburgh, Pennsylvania, April 23–27, 1957. There will be several workshops for the auditorily handicapped.

Meeting of the Conference of Executives of American Schools for the Deaf at the Mississippi School for the Deaf

THE twenty-eighth annual meeting of the Conference of Executives of American Schools for the Deaf met April 2–5, 1956, at the Mississippi School for the Deaf in Jackson, Mississippi. The last meeting of the Conference in Mississippi was held in 1888.

The papers given at the meeting were excellent and covered all the various aspects of the educational field of deafness. The meetings were exceptionally well attended. Credit for the arrangement of the program is due Dr. Edmund B. Boatner, President of the Conference and Supt. of the American School for the Deaf, and to Dr. Sam B. Craig, Program Chairman and Supt. of the Western Pennsylvania School for the Deaf. Within six weeks after the meeting all of the papers given at the Conference had been printed and distributed under the direction of the Secretary of the Conference, William J. McClure, Supt. of the Tennessee School for the Deaf. A limited number of copies of the *Proceedings* of the Twenty-eighth Conference are available.

Supt. and Mrs. Robert S. Brown and the members of their school staff were most gracious in entertaining the members of the Conference. Southern hospitality was never more adequately demonstrated.

Dr. Jackson A. Raney, Supt. of the Indiana School for the Deaf and President of the Kiwanis International, was presented a scroll with a citation for his work for the deaf by his colleagues in the Conference.

Dr. Leonard M. Elstad, President of Gallaudet College, gave the main address at the Conference Banquet.

The three new members of the Executive Committee elected were Dr. Hugo F. Schunhoff, Supt. of the West Virginia School for the Deaf, Archie F. Leard, Supt. of the Saskatchewan School for the Deaf in Canada, and Carl F. Smith, Supt. of the North Dakota School for the Deaf.

The members and guests present at the Conference were as follows:

MEMBERS PRESENT

Edward R. Abernathy, Ohio School
Lloyd Ambrosen, Maryland School
E. B. Boatner, American School
Richard G. Brill, California School, Riverside
Robert Brown, Mississippi School
M. B. Clatterbuck, Oregon School
Daniel T. Cloud, New York School
Sam B. Craig, Western Penn. School
Alan Y. Crouter, Mystic Oral School
John Yale Crouter, Rhode Island School
Alfred L. Davis, Georgia School
Leonard M. Elstad, Gallaudet College
Virgil Epperson, Washington School
J. H. Galloway, Rochester School
John Grace, Texas School
Harold Green, Utah School
L. B. Hall, Oklahoma School
Glenn I. Harris, Montana School
Joseph E. Healy, Virginia School
Marshall Hester, New Mexico School
Ben E. Hoffmeyer, North Carolina School
J. W. Jackson, Nebraska
F. R. Kleffner, Central Institute
John A. Klein, Lutheran School, Detroit
Thomas K. Kline, Illinois School
A. F. Leard, Saskatchewan School
Edgar L. Lowell, John Tracy Clinic
Melvin W. Luebke, Lutheran School, Mill Neck
E. A. McBride, Alabama Institute
William J. McClure, Tennessee School
A. S. Myklebust, South Dakota School
Roy G. Parks, Arkansas School
John Patton, Louisiana School
Egbert N. Peeler, North Carolina School, Raleigh
George T. Pratt, Clarke School, Northampton
Howard M. Quigley, Minnesota School
J. S. Raney, Indiana School
Carl Rankin, Gallaudet College
Stanley D. Roth, Kansas School
Hugo F. Schunhoff, West Virginia School
Bruce R. Siders, Michigan School
Carl F. Smith, North Dakota School
Roy M. Stelle, Colorado School
Elwood A. Stevenson, California School, Berkeley
Edward W. Tillinghast, Arizona School
Edward Twitmyer, Pennsylvania School
John M. Wallace, Florida School
Edward Waterhouse, Perkins Institute
Joseph Youngs, Kendall School

HONORARY MEMBERS PRESENT

Edmund Baxter, Washington, D. C.
Powrie V. Doctor, Gallaudet College
LeRoy Hedgecock, Mayo Clinic

ASSOCIATE MEMBERS PRESENT

Archer Bardes, Alabama School
Walter Bellhorn, Lutheran Institute, Detroit
Melvin H. Brasel, Arkansas School

D. J. Burns, Perkins Institute
A. W. Douglas, Texas School
Irving S. Fusfeld, Gallaudet College
C. Joseph Giangreco, Iowa School
Kenneth F. Huff, Louisiana School
Lillian R. Jones (Mrs.), Louisiana School
Alfred Lamb, Indiana School
Edward W. Reay, Florida School
Catherine Riser, Alabama School
Joe R. Shinpaugh, Virginia School
Eldon E. Shipman, Mississippi School
Chris G. Smith, Western Penn. School
N. F. Walker, South Carolina School
Herschel R. Ward, Tennessee School

GUESTS PRESENT

B. B. Burnes, President, NAD, Berkeley, California
S. W. Patterson, State Dept. of Education, Sacramento, California
John E. Paul, Speech and Hearing, University of Mississippi
George A. Falconer, Jackson, Mississippi
J. G. Thomas, Vocational Rehabilitation, Mississippi
Boyce R. Williams, Vocational Rehabilitation, Washington, D. C.

A Study of the Intelligence of Deaf and Hearing Children

Through a Comparison of Performances on the Separate Standardizations of the Nebraska Test of Learning Aptitude

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Teachers College, The University of Nebraska
Lincoln, Nebraska

THE controversy over the mean level of intelligence of deaf children as compared to that of children with hearing has occupied literature and echoed through convention halls for several decades. Pintner in a review of all data to 1940 summed it up by listing the probable mean intelligence quotients for deaf as: performance tests, 91; drawing-on-paper tests, 86; and the Draw-a-Man test, 88.[1] His over-all evaluation suggested a ten-point inferiority of the deaf in comparison with the hearing.

Myklebust, in 1953, took exception to this conclusion when he stated that "during the past fifteen years various workers have uniformly concluded that . . . deaf children are not generally inferior in intelligence as concluded by Pintner."[2] However, he hastened to add that, in spite of the quantitative equality, qualitative differences still exist in perceptual and conceptual functioning and reasoning.

Since the Nebraska Test of Learning Aptitude was standardized on deaf children, using 466 cases between the ages of four and ten years, and now has been standardized on hearing children, using 380 (selected) cases, it should throw some additional light on this issue.[3] Such a study

[1] Pintner, R., Eisenson, J., and Stanton, M., *The Psychology of the Physically Handicapped* (Appleton-Century Crofts: 1941), pp. 126–8.

[2] Myklebust, H., "Towards a New Understanding of the Deaf Child," *American Annals of the Deaf* (1953), 98: 345–57.

[3] In spite of the fact that the separate standardizations of the Nebraska Test were more than a decade apart, the results of the study should be pertinent. There is little in the various items of the scale that would be affected by the lapse of time. Nor should the performances of the subjects be modified to any significant extent.

In the standardization on deaf children, a random sampling was used at least to the extent that all children within the age range were tested in seven state schools for the deaf and in one city day school. With the hearing (1955) only children (4–10 years of age) who had scored within the average range (90–110) on the Binet scale were used. It was assumed that one could have about as much confidence in the results obtained from sampling 380 such children as he could in a random sampling of 700 or more.

permits the utilization of the same instrument, using pantomimed instructions for administering the scale to deaf children, and verbal instructions when using the scale with hearing children. In addition, the sampling apparently exceeds that of any other similar study, especially with this age group, and provides a means for comparing the groups on the sub-tests of the scale.

For those readers who are not familiar with the Nebraska Test of Learning Aptitude, a brief description of the parts of the scale is as follows:

Memory for colored sticks (subject must reproduce from memory the color series presented)
Bead stringing (copying of, or memory for, patterns)
Pictorial associations (selection of a picture that is related to the series presented)
Block building (using cubes to reproduce patterns shown in pictures)
Memory for digits (a digit series is exposed to subject, then hidden, and subject must duplicate)
Completion of drawings (draw in the missing part)
Pictorial identification (find identical picture in series of similar subjects)
Paper folding (reproduce patterns presented)
Visual attention span (one to six pictures exposed briefly, subject must select from 15 possibilities)
Puzzle block (cubes cut in various parts to be reassembled)
Pictorial analogies (analogies presented through pictures, subject selects picture which completes the analogy)

The scale includes a total of 124 individual parts.

At this point, one might question the attempt to study mental ability utilizing a scale devised as a test of learning aptitude. Many informed individuals feel that intelligence tests of the Binet type are scholastic aptitude tests. However, it would be advisable to know more definitely if the Nebraska Test can be utilized with confidence as a test of intelligence.

MacPherson and Lane compared both deaf and hearing children using the Hiskey (Nebraska) Test and two performance scales of intelligence. They obtained correlation coefficients of $.74 \pm .04$ for the deaf and $.90 \pm .02$ for the hearing. A retest of part of the group gave a correlation coefficient of $.87 \pm .03$, indicating high reliability. Their conclusions were that ". . . the results show the Hiskey Test to be a valid measure of mental ability and reliable for use in retests. Learning quotients can be compared with intelligence quotients of the deaf and hearing on performance scales."[4]

Davis, in an unpublished master's thesis, used the Nebraska Test with hearing children and compared the performances of 107 such children with their performances on the Stanford-Binet. A correlation coefficient of .82 was obtained when verbal directions for administering the scale and tentative norms for hearing children were used.[5] Perry, in another unpublished thesis (as part of her study) compared the performances of 49 children with "hearing deficiencies" and 49 children with normal hearing on the Stanford-Binet and the Nebraska Test. In spite of her comment that the Nebraska Test tended to rate somewhat lower than the Binet, she obtained a correlation coefficient of .835 using the norms established for deaf children.[6]

In the recent standardization on children with hearing, the writer had Binet ratings for all the children used in the test sampling.[7] The correlation coefficient for this large group was .829. (Employing the split-half method and the Spearman-Brown formula, the coefficient of reliability was .936.) Thus, if one accepts the Binet as a usable criterion of intelligence for this age group, this high correlation would indicate that the Nebraska Test could be used with considerable confidence as a measure of mental ability.

Table I shows the close relationship between the mean I.Q.'s of the Binet and the Nebraska at each age level. Age 5 is the only level where the mean I.Q.'s vary as much as one point. This appears to be additional evidence of the relationship between the two scales.

Assuming that the foregoing has established the validity of the Nebraska Test as a usable device for measuring the mental abilities of children between the ages of four

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[4] MacPherson, I., and Lane, H., "A Comparison of Deaf and Hearing on the Hiskey Test and on Performance Scales," *American Annals of the Deaf* (1948), 93: 178–184.

[5] Davis, K., A Study of the Performance of Hearing Children and Deaf Children on the Nebraska Test of Learning Aptitude for Young Deaf Children (Unpublished Master's Thesis, Southern Illinois University, 1952), p. 34.

[6] Perry, J., A Comparative Study of the Ontario and Nebraska Tests for the Deaf (Unpublished Master's Thesis, Milwaukee State Teachers College, 1947), p. 24.

[7] Hiskey, M. S., *Nebraska Test of Learning Aptitude* (Revised), University of Nebraska, 1955; p. 48.

and ten years, comparisons between the performances of the deaf and the hearing can be made with a reasonable degree of confidence in the measuring instrument. The high correlation of the Nebraska Test with the more verbal Binet Scale should make the following observations more significant.

The following tables (II–XI) show the age equivalents for each score as determined by the separate standardizations. Through the process of extrapolation, norms for

TABLE I

NUMBER OF CASES (HEARING) AND A COMPARISON OF THE MEAN I.Q.'S OF THE BINET AND THE NEBRASKA AT EACH AGE LEVEL

Age Group	Number of Cases	Mean Binet I.Q.'s	Mean Nebraska I.Q.'s
4	40	102.1	102.3
5	52	102.5	100.6
6	44	101.5	101.4
7	62	100.2	100.8
8	78	100.5	99.9
9	62	98.7	98.4
10	42	98.5	98.1
TOTAL	380	100.76	100.02

the scale extend from 3-0 to 11-6. However, for the purpose of this study, the actual limits of the standardizing group (4-0 to 10-0) are used.

Inasmuch as the median score represents the mental age (or learning age) of the individual, an over-all comparison of the results probably would be the most meaningful. However, some comments relative to the different items are in order.

Table II compares the performances on a memory type item using colored sticks. When only one color was demanded (scores 8 and below), the performances of the two groups were quite close. However, when two or more colors were presented at one time (scores 9 and above), the hearing children used their speech and hearing to an advantage. They would repeat the colors aloud while searching for the proper sticks, and this apparently strengthened their retention. Thus, the hearing surpassed the deaf at all the levels where series of colors were used. The same appeared to be true on the "Memory for Digits" item (which was not presented in table form since the

different methods of scoring did not permit a direct comparison). It would appear that even a non-verbal response of the immediate recall type often is strengthened through the utilization of supplementary sensory and motor cues.

Deviations in administration do not permit a direct comparison of the number of beads strung (Table III) at ages 4-0 to 5-0. The deaf are slightly below the hearing on the patterns reproduced from copying and from memory. Here again the hearing child tended to verbalize to himself.

TABLE II

A Comparison of Deaf and Hearing Children on the "Memory for Colored Sticks" Item

Age Rating	4–0	4–6	5–0	5–6	6–0	6–6	7–0	7–6	8–0	8–6	9–0	9–6	10–0
Deaf	7–8		9		10	11			12	13			14
Hearing	8	9		10	11		12		13		14	15	

TABLE III

A Comparison of Deaf and Hearing Children on the "Bead Stringing (and Patterns)" Item

Age Rating	4–0	4–6	5–0	5–6	6–0	6–6	7–0	7–6	8–0	8–6	9–0	9–6	10–0
Deaf	(9–10)	(11–12)	(13–14)	I		II			III			IV	
Hearing	(7–9)	(10–12)	I		II			III			IV		

(Roman numerals refer to the number of bead patterns completed successfully.)

The association of ideas or concepts through pictures (Table IV) showed the hearing to score higher than the deaf. The margin of difference appeared to increase as the difficulty or subtlety of the item increased. This seems to bear out Myklebust's observation of the qualitative differences that exist in perceptual and conceptual functioning and reasoning. However, one must not overlook the probability that the deaf child finds it more difficult to comprehend pantomimed directions than the hearing child does the verbal directions of the examiner. (This is discussed at greater length in the material that follows.) Since the "scores" are based on the total correct responses,

the hearing child often "gets the jump" on the deaf child. These same observations were true for the Picture Analogies (Table V) where the margins of difference were the greatest of any series of the scale. This points up the need for separate norms for the deaf, as well as the desirability of comparing the deaf with the hearing. It might also

TABLE IV

A Comparison of Deaf and Hearing Children on the "Picture Associations" Item

Age Rating	4–0	4–6	5–0	5–6	6–0	6–6	7–0	7–6	8–0	8–6	9–0	9–6	10–0
Deaf		5		6		7	8		9		10		11
Hearing	4	5	6		7	8	9	10			11		

TABLE V

A Comparison of Deaf and Hearing Children on the "Pictorial Analogies" Item

Age Rating	4–0	4–6	5–0	5–6	6–0	6–6	7–0	7–6	8–0	8–6	9–0	9–6	10–0
Deaf		2	3	4		5			6		7		8
Hearing	2	3	4		5	6	7		8			9	

TABLE VI

A Comparison of Deaf and Hearing Children on the "Block Patterns" Item

Age Rating	4–0	4–6	5–0	5–6	6–0	6–6	7–0	7–6	8–0	8–6	9–0	9–6	10–0
Deaf	2		3	4			5		6		7		
Hearing		3		4			5			6			7

suggest that in the teaching of the deaf child one must give even greater emphasis to the broadening of concepts than has been true in the past.

Table VI dealing with Block Patterns and Table VII on Paper Folding present a contrasting picture to the above. Here we see the deaf child catching up to or equaling the hearing child and then surpassing him at the higher levels. Since both of these items depend upon the visual perception and analysis of the individual, the ability of the

hearing child to vocalize does not aid him. Also, it would appear that the deaf child with his dependency upon visual cues surpasses the hearing child as he develops this perceptual approach.

The Completion of Drawings (Table VIII) again illustrates the probability that the deaf child through pantomime

TABLE VII

A Comparison of Deaf and Hearing Children on the "Paper Folding" Item

Age Rating	4–0	4–6	5–0	5–6	6–0	6–6	7–0	7–6	8–0	8–6	9–0	9–6	10–0
Deaf	3	4	5		6				7				
Hearing	3	4	5		6					7			

TABLE VIII

A Comparison of Deaf and Hearing Children on the "Completion of Drawings" Item

Age Rating	4–0	4–6	5–0	5–6	6–0	6–6	7–0	7–6	8–0	8–6	9–0	9–6	10–0
Deaf			1	2–3	4–5	6	7–8	9	10	11	12		
Hearing	2	3	4	5	6–7	8–9	10	11	12		13		

TABLE IX

A Comparison of Deaf and Hearing Children on the "Pictorial Identification" Item

Age Rating	4-0	4-6	5-0	5-6	6-0	6-6	7-0	7-6	8-0	8-6	9-0	9-6	10-0
Deaf	13-14	15-16		17-18	19-20	21-22		23-24					
Hearing	14-15	16	17	18	19-20	21	22	23	24				

(directions) does not grasp as readily or completely what is required of him as does the hearing child through a verbal approach. The table reveals that this item did not function with the average deaf child until the age of five, whereas the hearing child responded readily to the easier parts of the item at the age of four. As a result of testing hundreds of children in each group, the writer is confident that the major difference lies in the degree of understanding of the communication. This is substantiated somewhat by

the performance on the Pictorial Identification item (Table IX). Here the hearing children are superior to the deaf until the age of 5–6. At this point the deaf equal the hear- and eventually surpass them slightly.

(The younger deaf child has more difficulty grasping the directions than the hearing child of equal age. The older child, often having done tasks similar to these, grasps the directions readily and uses his training in visual discrimination to advantage in equalling or surpassing the hearing child. *Tables VI, VII, and IX.*)

TABLE X

A Comparison of Deaf and Hearing Children on the "Puzzle Blocks" Item

Age Rating	4–0	4–6	5–0	5–6	6–0	6–6	7–0	7–6	8–0	8–6	9–0	9–6	10–0
Deaf		1		2			3			4			
Hearing	1		2		3			4			5		

TABLE XI

A Comparison of Deaf and Hearing Children on the "Visual Attention Span" Item

Age Rating	4–0	4–6	5–0	5–6	6–0	6–6	7–0	7–6	8–0	8–6	9–0	9–6	10–0
Deaf			2		3			4				5	
Hearing		2		3			4				5		

The writer's experience with each group makes him equally confident that the margins in the norms for the Puzzle Block item (Table X) can be attributed, in the main, to the variability of communication techniques utilized with each group.

On the immediate recall of pictures presented, as measured by the Visual Attention Span item (Table XI) the hearing child again appeared to have the advantage (described above) of repeating the series over and over while making his selections.

The foregoing comments in regard to separate items should be supplemented by an overview of the entire scale. The following points concerning the derived norms suggest what would happen in terms of quotients:

Number of times scores fall at same age	15
Number of times the deaf are one-half year below	30
Number of times the deaf are one year below	14
Number of times the deaf are more than one year below	8
Number of times the deaf are one-half year ahead	5
Number of times the deaf are one year ahead	1
TOTAL SCORES COMPARED FOR ALL ITEMS AT ALL AGE LEVELS FROM FOUR TO TEN YEARS	73

A review of the above gives a total of six scores where the deaf excel the hearing and fifteen scores that rate the same age norm for both groups. Thirty scores show the deaf to be one-half year behind the hearing. Of the eight scores where the deaf are more than one year below the hearing, four of the scores are on the "analogies" item and three others are on the "completion of drawings."

Since the age rating of the child is the mid-score or rating on the scale, one might make certain conjectures about the variations in quotients for the two groups. Out of 73 scores within the age range, the deaf children rate as high as or higher than the hearing on 21 scores (28.8%) and are no more than six months behind the hearing on 30 additional scores (41.1%)—a total of approximately 70%. Thus, in nearly seven cases out of ten, the deaf child equals or is within six months of the hearing child. This would imply that the mean intelligence quotient of the deaf group would fall in the mid-90's when compared with the hearing.

The observations and experiences of the writer lead him to conclude that in reality the mean levels of intelligence of the two groups even more closely approximate each other than the above indicates, especially in view of the communication differences (between examiner and subject) mentioned previously. Graham and Shapiro made an analysis of the effect of pantomime directions in administering the performance part of the WISC.[8] They equated twenty deaf children with two groups of twenty hearing children each on such factors as intelligence, health, sex, color, age, and nativity. The deaf and one group of hearing took the WISC (performance) in pantomime. The control group took the test through hearing, as usual. The mean of the deaf group was five I.Q. points lower than the control group, and the hearing pantomime group was

[8] Graham, E., and Shapiro, E., "Use of the Performance Scale of the Wechsler Intelligence Scale for Children with the Deaf," *Journal of Consulting Psychology* (1953), 17: 396–98.

six I.Q. points lower than the control group. They suggest a correction factor to nullify the effects of pantomime directions. Such a correction factor might lessen considerably the "gap" between these two groups. (Where there is a separate standardization on the deaf, the correction factor probably becomes a part of standardization.)

Summary and Conclusions

1. The high correlations between the Nebraska Test and the Binet Scale, and the Nebraska Test and performance scales of intelligence, suggest that the Nebraska Test can be used with confidence as a measure of intelligence.

2. When the performances of deaf and hearing children (four to ten years of age) on the separate standardizations of the Nebraska Test were compared, the deaf on the average rated slightly lower than the hearing. The most common difference was one-half year (41.1% of the scores). However, the deaf rated as high as, or higher than, the hearing on 28.8% of the scores. This would suggest that the average quotient for the deaf would be in the mid-90's when norms for hearing children are used.

3. The writer's observations of both groups led to the conclusion that the hearing children had a decided advantage on all items where vocalization aided retention (immediate recall). The deaf excelled slightly on some items demanding visual perception (almost entirely) as the approach to analysis and performance.

4. The deaf children appeared to have more difficulty in understanding communication (directions) through pantomime than the hearing children did through verbal explanations. This probably caused the deaf to make lower scores on certain test items. It also indicated the desirability for separate norms in certain situations.

5. The impressions gained from this study were that the deaf closely approximate the hearing in mean level of intelligence but that their mean rating (I.Q.) is likely to be slightly lower due to (a) communication difficulties between the examiner and the examinee, and (b) the ability of hearing children to utilize their native potential more efficiently (than the deaf) in those situations where verbalizing aids retention and possibly analysis. Perhaps

the first point suggests the desirability of future tests having even more practice exercises than are utilized in present scales. It is doubtful that the deaf (as a group) can ever overcome completely the loss of efficiency resulting from deafness and less facility with verbal abstractions. It is encouraging to have additional evidence that the deaf are likely to equal the hearing where language is not a primary factor and even to excel where visual perception is of paramount importance.

New Approaches to Teaching the Young Deaf Child

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NO one who concerns himself with the total problem of education of the deaf questions the need of the child and adult for command of the English language. Whatever the means of communication, both vocabulary and structure must be built to maximum efficiency for every deaf child. The end product should be functional, idiomatic, and automatic whether spoken, spelled or written. In a recent monograph, Dr. Irving S. Fusfeld of Gallaudet College pointed out that the language of entering students often falls far below this objective.[1] The Freshmen at Gallaudet College represent the best products of all of our schools. Assuming that constant emphasis has been laid on language development, the fact that these superior students after from twelve to fifteen years in school are still weak in written expression raises two questions:

1. Is the acquisition of functional, idiomatic, and automatic language impossible for most of the congenitally deaf?
2. Does the methodology of teaching need critical examination followed by extensive revision?

To the first of these questions I affirm my constant and unwavering belief that the objectives can be reached by all deaf children. That there will be differences in the size of vocabulary and the complexity of sentence structure is obvious, but all children should be able to acquire functional and correct English, and *all* of their sentences should eventually meet this standard.

To the second of these questions I offer my own line of reasoning based on the assumption that the methodology *does* need critical examination and revision.

[1] Irving S. Fusfeld, "A Cross-Section Evaluation of the Academic Program of Schools for the Deaf," Bulletin No. 1, Vol. 3, February, 1954 (Washington: Gallaudet College).

For twenty years I have been professionally concerned with the education of children who are deaf. For many years my only colleagues were persons who were likewise engaged in the education of the deaf. For the past seven years I have been at a teacher education institution where my primary concern is the preparation of teachers of the deaf. At the teacher's college I have been working for the first time with teachers in all fields of education. I have found myself at first resisting and later welcoming a growing conviction that my field is much too isolated from the rest of education and, in consequence, is not taking sufficient advantage of an extensive body of knowledge which has been growing in other fields. The procedures and techniques of educating the deaf child have altered very little since I was in training twenty-three years ago; while in other fields changes of methodology have been extensive. Change is not of itself necessarily good or bad; but if the end-product of our work is still below our own objectives in far too many cases, we should, perhaps, try some different techniques and evaluate.

Long before anyone else was talking about "activity programs" our profession began teaching through "action work." Long before anyone had coined the phrase "reading readiness," we were using "sense training" devices. Long before other teachers took (hearing) children out of their classrooms to see and investigate, we went for walks to see and do. Many procedures which we began have been developed by the rest of education to a more effective level than that we have attained. Perhaps we now should learn from others as they have learned from us.

Our assumptions about the development of language are based upon the premise that the deaf child should learn language as anyone learns a foreign language. This premise is, perhaps, false, since no individual learns a second language in the same way that he learns his first. Even if the premise is correct, however, the procedures are not. In the nineteenth century, foreign language teaching was accomplished through the acquisition of a vocabulary (word list) accompanied by the learning of specific rules of grammar (language principles). This led

to fairly accurate reading of a foreign language but to stilted and often laughable written and spoken usage. In the twentieth century foreign language teachers recognize that functional and idiomatic use of language comes only through actual use in meaningful situations.

It has also been demonstrated that when children are required to learn rules of grammar at an early age, those rules (which we call language principles) later must be re-taught. We certainly do teach and re-teach.

Ophthalmologists state that a child's vision does not mature enough to allow the near-point fusion necessary for reading at a desk or table until the child is approximately six and a half years of age. This is a matter of the structure of the eye, not of how the eyes are used. Reading instruction and writing instruction for little hearing children, except on large charts and chalkboards, have been greatly delayed by these findings.

The time which formerly was used in reading activities with small hearing children is now devoted to building a body of concepts and the vocabulary to clothe those concepts and to establishing inter-communication of the children. Concepts are built through using audio-visual aids of *all* types, developing classroom projects of various kinds, making collections, telling stories, and going on trips simple and extensive. Inter-communication is built through "sharing times," dramatic play, block play, pantomime, creative activity (paper, paint, crayons, scissors, paste, clay, etc.) and construction (with regular tools and wood).

To some degree most of these activities are used with little deaf children, but it is my belief that none of them is used as extensively or as well as it can and should be. I believe that, conscious of the tremendous job of learning which the deaf child must do linguistically, we are in too much haste at the beginning of his education and that he pays dearly later for that haste, because he must re-learn.

The small hearing baby talks in "one word sentences" for many months. He combines words erratically, leaving out articles, prepositions, connectives, and other parts when he begins to try to make sentences. Pronouns confuse him for two or three years; he does not even attempt them until his vocabulary is fairly mature. Yet the small

deaf child is asked to begin to "cope" with pronouns in his first year in many schools. Verb tenses are of little interest to small hearing children, and time is meaningless to them until they have had many experiences of waiting for something to happen and recalling it afterwards. It is very doubtful whether the calendar drills which we have always used are more than rote learning for our children and still more doubtful whether they "pay off" in terms of a foundation for teaching tense.

I have examined many courses of study from schools for the deaf, and I am very much troubled by most of the word lists. First: they are not composed of very interesting vocabulary. A small child (five years old or so) is interested in house play but only as a point of departure. He is interested in people: postmen, policemen, firemen, doctors, dentists, and others whom he knows, and in what those people *do*. He is interested in animals, bugs, rocks, trucks, dirt, trains, water. In these days of television he is interested in horses, cowboys, guns, airplanes, and cars. He has tremendous and challenging interests which can be developed into lively curiosity which makes language necessary. But in our primary vocabulary lists, we still find ball, top, fish, bird, parts of the body, clothing, as the beginning words.

Second: The vocabulary does not lend itself to voluntary efforts to combine. The verbs which are taught so laboriously do not combine with the nouns except in the case of "saw", "have," and "want." Thus the child's first sentences are completely artificial and seldom involve true communication. The child "creates" sentences in a manner so structured that the real purpose of making a sentence is often completely lost.

Third: The vocabulary is largely monosyllabic. For chart reading, for speechreading, and probably for fingerspelling, longer words with more configuration are easier to learn and remember.

I believe that from the work that is being done in "regular" schools we could learn much more that would be valuable to us:

1. We should examine the child growth and development studies, particularly in the areas of language develop-

ment and children's interests, and re-evaluate our work from a developmental point of view.

2. We should re-think the actual content of our work with deaf children to introduce more dynamic material to induce curiosity and thereby communication. In so doing we should remember that repetition of the same vocabulary, so necessary for deaf children, can be a planned concomitant of many diverse activities.

3. We should not teach reading and writing until the child is ready both physically and psychologically.

4. We should make an intensive study of new procedures in visual aids so that tack-boards, flannel boards, film strips, stick puppets, realia, slides, and displays will be as effectively used with deaf children, who depend entirely upon their eyes, as they are with hearing children.

5. Finally, we should learn that language is not *per se* a subject, and we should re-direct our language teaching to the primary function of language, namely the clothing of *ideas* with words. By the introduction of vital and meaningful activity we should be able to develop vital and meaningful language.

I believe that if we organized a large block of work designed to include a great deal of vocabulary, we would find that our little children quickly learned both the meaning and purpose of words. This kind of "unit teaching," so prevalent in schools for the hearing, is almost entirely neglected in schools for the deaf. I think it should be tried thoroughly and evaluated. I propose to sketch briefly here a unit.

Let us pre-suppose a class of nine children between the ages of five and six entering a school for the deaf. We will assume a normal range of children, including well-adjusted, disturbed, bright, not-so-bright, mature, immature, large, and small children. During the first two or three weeks the teacher will introduce the children to many kinds of materials, particularly to paint, paper, and crayons, for which she will consistently give them the words. (Note that this paper does not specify the *means* of giving them these words; it may be orally, manually, or in writing.)

The teacher is aware that children in residential schools are greatly interested in their mail. Accordingly her planning involves a unit of work built around the mail. She writes to the parents asking them to send their children very short letters illustrated with a little drawing or a snapshot if possible. She urges the parents to write these notes frequently. She arranges for the children's mail to be delivered to the classroom. She finds picture books in which postmen are featured and puts them on a table. She arranges a bulletin board with pictures pertaining to the handling of mail. She locates and arranges for a film strip on the postoffice to be used later. She pre-plans some specific vocabulary which she expects to develop, drill, and make permanent. This vocabulary would certainly include: letter, card, stamp, mailbox, went, walk, truck, postman, bag, cap. A great many other words would be involved which might or might not be learned: cancel, machine, and the like. She will use again and again words like paper, paste, crayon, scotch tape, paint, scissors, hammer, and nails. She anticipates the use of colors: red, purple, green (stamps); red, white, and blue or green (mail truck); brown (mailbag).

She expects to develop and clothe with language certain ideas: that people write letters; that a fresh stamp has to be placed on a letter; that many people handle a letter; that packages are handled in the same way; that stamps are bought at the postoffice; that stamps cost money; that postmen bring letters to houses and schools; that some postmen ride and other postmen walk.

She plans the following activities: a trip to the nearest mailbox at the time when the truck will pick up the mail; a trip to the postoffice at the time when the mail truck arrives at the postoffice; and, if possible, a trip to a railroad station when a mail car is being loaded.

The procedures to be used will, of course, differ from school to school, from teacher to teacher, and from class to class. It would be expected, however, that in all cases a great deal of dramatic play would follow each trip, that charts would be developed, that many art projects would grow out of the children's need to express their ideas.

For example: let us examine the trip to the mailbox,

which should be within two or three blocks of the school at the most. The teacher has postcards for each child's family ready and addressed. She shows them to the children and talks about them indicating that we are going to mail them. (This indication is, of course, pantomime, speech or fingerspelling, and writing on the chalkboard.) During the expedition, the teacher keeps up a running commentary. The children wait and see the postman take the letters out of the mailbox. Upon return to school they talk about it and perhaps decide to make pictures of the activity either on that day or the next. These pictures should be planned together so that each child depicts a different part of the trip. Each picture should be mounted on a large newsprint or tagboard chart. Beginning the following day the class should work out together what each picture depicts, and the teacher should put a one sentence legend under each. One chart should be developed each day. This might come to nine charts with the following legends (or something similar);

1. We went for a walk. (leaving school)
2. We went to the mailbox.
3. We put our cards (and letters) in the mailbox.
4. A (red, white, and blue) truck came.
5. The postman got out of the truck
6. The postman unlocked the mailbox (with a key).
7. The postman put our letters in a bag.
8. The postman put the bag in the truck.
9. The postman drove away.

This chart story can be read and re-read.

Meanwhile the children should re-enact this activity in dramatic play. In so-doing they should discover that they need: a mailbox (to be constructed from a carton and mounted on four legs or one standard according to the type of mailbox they visited. Note that in every residential school there are shops and shop teachers. These persons can be consulted and can give advice, but this mailbox should be constructed by the little children in their own room.) They need a postman's cap (to be made from a paper bag and tagboard) and a mailbag (an outsize paper

bag suitably decorated or a large laundry bag) and a truck (to be constructed from a carton in which a hole is cut for a child's head and which can be painted to match the truck which they saw. This "truck" can be as simple or as elaborate as the children require and as *their* ingenuity can devise. The important thing is for them to imagine that it is a truck.) Observe that in the creation of these playthings, many words are used again and again and that as the children are making the objects, they will, themselves, need the words.

Other expeditions should be planned and followed up in the same way, reinforced by films and filmstrips when possible, and accompanied by story telling.

When the children have tired of playing postoffice, it is time to move on to another unit. For example: if one were to move on to fire engines and fire houses, there would, of course, be new vocabulary; but there would still be trucks, men, boxes (fire boxes now), went, walk, cap!

I do not mean to imply that the child's whole day should be spent learning about the postal service, but I believe that half his day could be profitably spent in this way. It is obvious that teaching in this way calls for a great deal of pre-planning and organization by the teacher. It calls for ingenuity and resourcefulness. It demands the ability to seize upon every interest of the child, however momentary, to make him aware of words and communication. I think that it is both much more difficult and much easier than our more conventional teaching. It is much harder to plan and organize for systematic developmental learning, but it is much easier to develop enthusiasm and sustain attention. I think that teachers of the deaf work very hard, and I think that one of the things that makes the work so difficult is the slow return on the investment of time and energy. You see, I believe in deaf children, and I think they could perhaps learn faster than they do if we were to move much farther in the direction outlined here.

Predicting School Achievement in Young Deaf Children

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IN 1952 at the Western Pennsylvania School for the Deaf we began systematically collecting data on the children as they were enrolled to determine whether we could predict their achievement in school. This report presents results obtained from comparing the intelligence quotients of thirty-five children at entrance, and subjective estimates of their potential, with their achievement ratings after one to three years in the school.

The ability to forecast school achievement in young deaf children is of acknowledged value, but researchers have had little success in finding how to make valid predictions. Lavos summarized the few studies bearing on the prediction of educational achievement by intelligence tests and concluded that there is a positive relationship, but one which suggests that the non-language tests used to measure intelligence did not tap the abilities of major importance in the educational growth of deaf children.[1] An article by the authors four years ago indicated that the Leiter International Performance Scale might prove a potent predictor of school success for deaf children.[2] Other direct observation indicated that experienced supervising teachers frequently seemed able to judge fairly well the future success in school of young deaf children. Prompted by the practical potential of further research in this direction, we directed our study toward answering these two questions:

[1] G. Lavos, "Intelligence of the Deaf," in *Special Education of the Exceptional*, ed. Frampton and Gall (Boston: Porter-Sargent, 1955), Vol. II.

[2] "The Leiter International Performance Scale As an Aid in the Psychological Study of Deaf Children," *American Annals of the Deaf* (1951), 96: 502–511.

Can the results of the Leiter International Performance Scale provide useful predictions of the future school success of young deaf children? And, do the estimates of children's intelligence made by supervising teachers furnish useful predictors of future school success? The answer to both seems to be a qualified *yes*.

Thirty-five new enrollees in the Western Pennsylvania School for the Deaf were the subjects. There were no selective factors which would make the group unrepresentative of usual admissions. The twenty-two boys and thirteen girls, ranging in age from three years and eleven months to eight years and six months were distributed as follows: one 3–3·11, seven 4–4·11, sixteen 5–5·11, ten 6–6·11, none between 7 and 8, and one in the 8–8·11 age range. They were admitted to the school as follows: twenty-two in 1952, ten in 1953, and three in 1954.

In a psychological examination about six months after their entrance, we assigned the youngsters ranks from 7 to 1 according to their scores on the original Leiter Scale[3] (rather than the Arthur adaptation[4]), as shown here:

PREDICTION CHART

Leiter IQ Range		*Verbal Rating*
111 and higher	7	Very Superior
100 to 110	6	Superior
95 to 99	5	High Average
85 to 94	4	Average
80 to 84	3	Low Average
60 to 79	2	Poor
59 and lower	1	Failing

This prediction chart and its rankings were not shared with other personnel at the school. At about the same time, six months after admission, two supervising teachers were asked to rate the children on general intelligence. They were aware of the general nature of the research and were quite coöperative; each had charge of the educational program for about half of the children in the sample.

[3] R. G. Leiter, *The Leiter International Performance Scale* (Santa Barbara, Calif., 1940).

[4] G. Arthur, "The Arthur Adaptation of the Leiter International Performance Scale," *Journal of Clinical Psychology* (1949), 5: 345–349.

A list containing the names of approximately two hundred and fifty boys and girls enrolled in the school was prepared. The names of the thirty-five children in the sample were checked on this list, and the supervising teachers given the following written directions: "Please rate the children whose names are checked in reference to their general intelligence. Compare them with other deaf children of the same age. Use the following key: V.S., Very Superior; S., Superior; H.N., High Normal; N., Normal; L.N., Low Normal; D., Dull; M.D., Mentally Defective."

Each of the thirty-five children received only one rating on general intelligence. It was made by the supervising teacher in charge of the division of the school to which the child was assigned. The supervising teachers gave the ratings to the psychologist and did not keep copies. The psychologist then assigned rankings from 7 to 1 to the supervising teachers' ratings. "V.S." was ranked 7, "S." 6, and so on to 1 for "M.D."

In the spring of 1955 another and different rating was secured from the supervising teachers. By this time twenty-two of the children had been in school for more than three years, ten for more than two years, and three for more than one year. The ratings made at this time were on the current educational achievement of the children. The ratings by the supervising teachers took into account all the information available about the achievement of the sample children in relation to that of other children of their age. It is noteworthy that this rating by supervising teachers represents a real criterion for success in school because theirs was the final authority for placement and grading of the children in their divisions.

The achievement rating procedure was similar to that used earlier to rate intelligence. The sample names were included in a longer list of names, and the teachers asked: "Please rate the children whose names are checked in reference to their success in school work. Compare them with other deaf children *of the same age.* Use the following key: V.S., Very Superior; S., Superior; H.A., High Average; A., Average; L.A., Low Average; P., Poor; F., Failing." Results were also ranked.

The rankings of the authors' Prediction Chart were cor-

related with the rankings of the supervising teachers' Achievement rating to determine to what extent the Leiter Scale predicted the school achievement of the children. The rankings of the supervising teachers' Intelligence ratings were also correlated with the ranking on their Achievement ratings to discover to what extent supervising teachers' opinions about intelligence after six months of observation predicted the achievement of children as much as three years later. The rankings of the Prediction Chart were then correlated with the rankings of the supervising teachers' Intelligence ratings to determine whether the two were independent.

The results may be stated in terms of product-moments. Correlation between our Prediction Chart and the teachers' Intelligence ratings gives a product-moment r of .86. That between our Prediction Chart and the teachers' Achievement ratings, an r of .71. And that between the teachers' Intelligence and Achievement ratings an r of .82.

Psychologists will be interested to learn that the lowest mean and smallest standard deviation were found on the supervising teachers' Intelligence rating. Our Prediction Chart rankings showed a mean of 4.38 with an S.D. of 2.04; the Intelligence ratings, a mean of 3.86 with an S.D. of 1.02; the Achievement ratings, a mean of 4.03 with an S.D. of 1.64. The Leiter Intelligence Quotients showed a mean of 91.6 and a standard deviation of 13.3. The Leiter mean IQ for the thirty-five cases should not be taken to indicate that the sample of deaf children used in this study was below average in general intelligence. There are many indications from previous studies that a Leiter Scale Intelligence Quotient of 90 is equivalent to intelligence quotients approximately ten points higher on other mental ability scales.[5]

Conclusions

The Prediction Chart should prove quite useful in estimating the future success of young deaf children in school, although it is not a perfect predicting device. The correlation of .71 between rank on the Prediction Chart and the evidence of later achievement supplied by

[5] Birch and Birch, *op. cit.*, pp. 519f.

the supervising teachers' ratings does assure, though, that the predictions will be considerably better than chance guesses. And these predictions can be made soon after the child enters school, for the Leiter may be administered as soon as rapport can be established. The r of .86 between Prediction Chart rankings and supervising teachers' intelligence ratings strongly suggests that the Leiter Scale measures to a large extent what experienced supervising teachers look for when they judge the intelligence of young deaf children. What these particular abilities are and how they manifest themselves to the observer is worth further investigation.

The use of the Leiter Scale in terms of the Prediction Chart certainly seems advisable. Its use should be supplemented, of course, by whatever data the psychologist has on the young deaf child entering school. Planning for children and guidance for parents can become somewhat more objective if the Prediction Chart is used shortly after school admission. Ratings by supervising teachers can be used to add to the prediction information.

CHANGES IN ADMINISTRATORS

California

Valentine A. Becker, Rehabilitation Counselor for the Deaf of the California Bureau of Vocational Rehabilitation since 1945, has been appointed Principal of the Gough School in San Francisco, California. Mr. Becker was graduated from the Teacher Training Department of Gallaudet College in 1939. He formerly taught in the Iowa, Arizona, and Kendall Schools for the Deaf and was Principal and Superintendent of the Wisconsin State School before going to California.

District of Columbia

William C. Stokoe, Jr. has been appointed Associate Editor of the *American Annals of the Deaf*. The Executive Committee approved his appointment at the meeting of the Conference of Executives of American Schools for the Deaf held in Jackson, Mississippi, April 1956.

Dr. Stokoe, since September 1955 Professor of English and Chairman of the Department of English at Gallaudet College, teaches composition and literature. He began teaching at Cornell University while working for his doctorate. He also taught English at Wells College where for two of his nine years he was also department chairman. His articles and reviews on mediaeval literature, Anglo-Saxon, Anglo-Norman, Middle-English, and Chaucerian, have appeared in *Publications of the Modern Language Association*, *The University of Toronto Quarterly*, and *Speculum*, the journal of the Mediaeval Academy of America.

On leave in 1953–54, he pursued his interests in early literature at libraries in Scotland and England and developed further his interest in descriptive, structural linguistic research. In November 1955, he was chosen by Professor J. Burke Severs of Lehigh University to assist in the coöperative MLA revision of Wells' *Manual of Writings in Middle English*, a standard reference work. He will edit the chapter on the Middle Scots Writers.

As a licensed radio amateur for many years, he has kept up with electronic theory and practice from triodes to transistors; and as a reader for the Educational Testing Service, he maintains an interest in methods of predicting college performance and judging teaching results. He is not unacquainted with printer's ink either, having made matrices and cast a font of Greek type from punches designed and hand cut by Victor Hammer, one of the world's foremost type-designers and hand-press craftsmen.

Florida

Richard K. Lane has been appointed Principal of the Department for the Deaf at the Florida School for the Deaf. Mr. Lane was graduated from Columbia University with a Master's Degree in Special Education and received a Professional Diploma in Administration from Gallaudet College. He has taught in schools for the deaf in New Mexico, Illinois, Kendall School in Washington, D. C., and was formerly Supervisor of Auditory Training and of the Primary Department in the Florida School.

Paul C. Bird, who has been Principal of the West Vir-

ginia School for the Deaf for the past four years, has been appointed Supervisor of Auditory Training and of the Primary Department in the Florida School. Mr. Bird received his training for work with the deaf at Gallaudet College. He has also taken graduate work at Northwestern University.

Idaho

Edward W. Reay has been appointed Superintendent of the Idaho School for the Deaf and the Blind in Gooding, Idaho. Mr. Reay has been Principal of the Florida School for one year, Principal of the Washington School for seven years, and of the Kansas School for one year. He has taught in the Iowa, Rochester, and Illinois schools. He was graduated from Illinois College in 1937, and received his training for work with the deaf at the Clarke School in Northampton and Gallaudet College in Washington, D. C. He also has a graduate degree from the University of Massachusetts.

Allen J. Hayek has been appointed Principal of the Idaho School for the Deaf and the Blind. Mr. Hayek is a graduate of the University of Iowa. He received his training in work with the deaf at the Arkansas School for the Deaf. He has taught in the Oregon School for seven years.

Iowa

C. Joseph Giangreco, Principal of the Upper Division of the Iowa School for the Deaf, has, in addition, been appointed Supervising Principal of the academic Lower and Middle Divisions. He will also be director of teacher training. Mr. Giangreco is a graduate of Illinois College and received his training for work with the deaf at the Lexington School in New York and received a Professional Diploma in Administration from Gallaudet College.

Massachusetts

Miss Vivian Tilly, a member of the staff at the Clarke School since 1919, and Principal of the Lower Division since 1937, has been appointed Assistant to the Principal. Miss Tilly is from Georgia.

Mississippi

Mr. Van Porter has been appointed Principal of the Mississippi School for the Deaf in Jackson, Mississippi. Mr. Porter received a B.S. and M.S. degree from Clemson College and received his training to teach the deaf at Gallaudet College. He was a member of the staff at the North Carolina School for the Deaf for four years and for the past year has been supervising teacher at the Virginia School. Mr. Porter has also done graduate work at Northwestern University.

New York

Miss Josephine Carr has been appointed Supervising Teacher of Speech and Hearing in the New York School for the Deaf at White Plains. Miss Carr has been Principal of the Primary Department and Director of Teacher Training at the Iowa School where she has been a member of the staff since 1942.

Ohio

Mrs. Anna May Worthington has been appointed State Supervisor of the Education of the Deaf and the Hard of Hearing in Ohio. Mrs. Worthington, who took over the duties, December 1, will oversee all facilities for the education of the deaf and the hard of hearing in the State of Ohio, including the various day and private schools and the state school. Mrs. Worthington's sisters, Mrs. Crosby and Mrs. Kelsey, teach in the Wisconsin School for the Deaf, and her father, Paul Lange, was a member of the staff of the Wisconsin School for many years.

West Virginia

Eldon Shipman, who has been Principal of the Mississippi School for the Deaf for the past two years, has been appointed Principal of the West Virginia School for the Deaf. Mr. Shipman received his training in work for the deaf at Gallaudet College.

CITATIONS FOR HONORARY DEGREES

In connection with the Ninety-second Commencement Exercises on May 28, 1956, Gallaudet College conferred five honorary degrees. The recipients of the degrees and the citations were as follows:

MILDRED AGNES GROHT—Eminent as teacher and writer on subjects related to education of the deaf, successful principal guiding the classroom work of one of America's great schools for deaf children, much sought as speaker from the platform at national and regional conventions, outstanding for her direction of teacher training both in the Lexington School for the Deaf and by invitation in numerous other schools over the Nation, carrying the same message in summer session centers each year and, most outstandingly, promoting new and enlivened methods of teaching language to deaf children, the last-named field being one in which she has attained great success. The HONORARY DEGREE OF DOCTOR OF PEDAGOGY.

HELEN NORTHROP—A graduate of the College whose lifework has been dedicated to the classroom and thereby helped enrich the lives of pupils who have since turned into sturdy citizenry. First as a member of the staff of Gallaudet College, then as instructor in a number of schools for the deaf, she has given in all forty-five years of distinguished teaching service, the last twenty-one years as academic principal in the Washington State School for the Deaf. In the last-named position she demonstrated rare organizing skill and planning for the progressive development of the school program. Above all, she holds the sure sign of the ideal teacher, the devoted affection of her pupils. THE HONORARY DEGREE OF DOCTOR OF PEDAGOGY.

ROBERT SAMUEL BROWN—An instance of the schoolman fired by a tireless urge to bring betterment to the scene of his labors, serving his fellow men in the truest sense. That urge has been compounded of vision, persisting drive, and a fast devotion to the task of making the path of the deaf people of his State an easier one. He has transformed a school for the deaf formerly in dire need of change into one which already stands out as a mark of achievement, and in the process he has been particularly successful in raising in the authorities of his State a new public appreciation of what education of the deaf can mean. THE HONORARY DEGREE OF DOCTOR OF LETTERS.

MARCUS L. KENNER—A deaf man who, along with a successful business career, has devoted much of his lifetime espousing the cause and the welfare of the deaf. He has been active in leadership in the National Association of the Deaf—being twice chosen its president—and for many years one of its board members, a ready writer in publications of the deaf, and in conferences with Federal and State authorities

has played a key role in effecting better official understanding of the needs and problems of the adult deaf people of America. He has been a prime mover for associational and religious interests among the deaf, skillfully enlisting the interest and aid of persons prominent in the community and so demonstrating that deaf persons can have remarkable talent for leadership in behalf of their fellow men. THE HONORARY DEGREE OF DOCTOR OF LETTERS.

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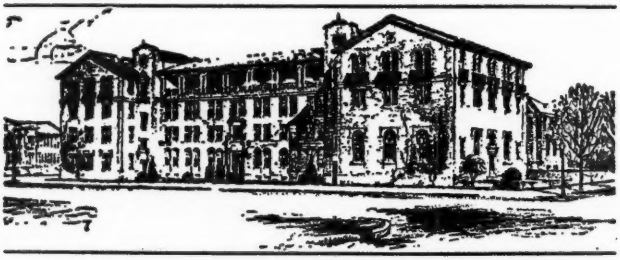
THE Language Outline prepared by the members of the faculty at Central Institute for the Deaf, St. Louis, Mo., has been reprinted for the third time since it was originally published in the AMERICAN ANNALS OF THE DEAF in September, 1950. Copies may be obtained for fifty cents. Orders may be sent to the AMERICAN ANNALS OF THE DEAF, Gallaudet College, Washington 2, D. C.



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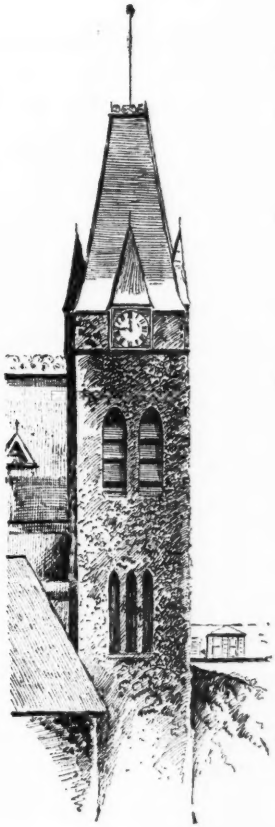

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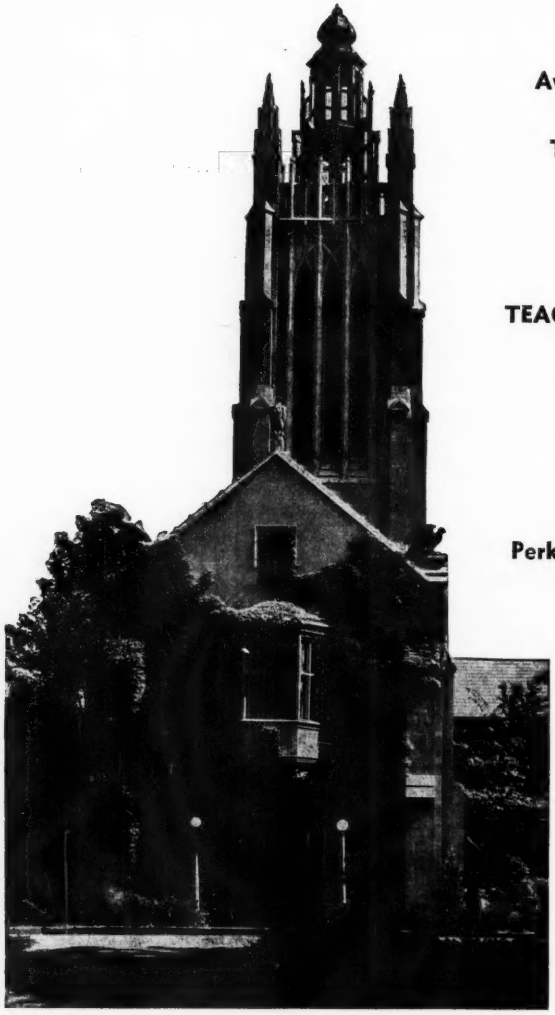

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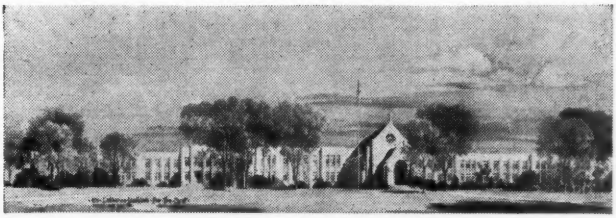

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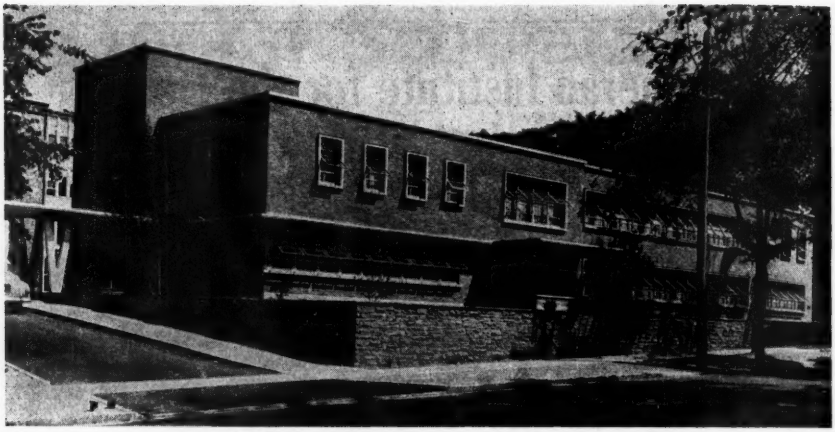

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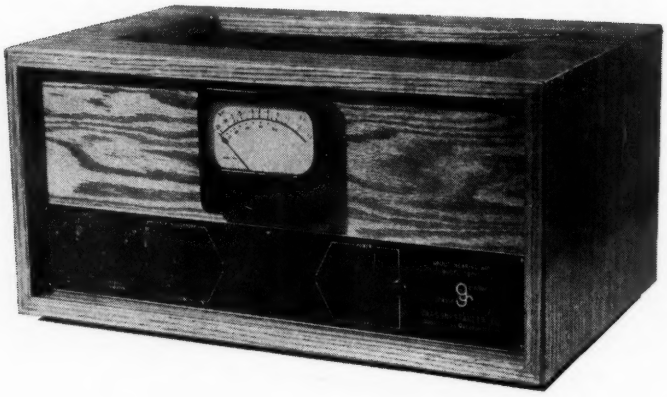

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A complete list of reprints available for purchase at the office of the *Annals* will be sent free on request.

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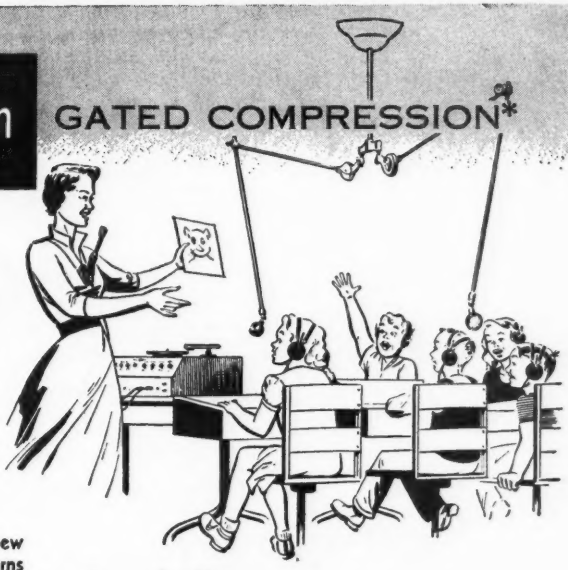

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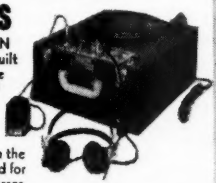

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The American Annals of the Deaf

The AMERICAN ANNALS OF THE DEAF was founded in 1847 at the American School for the Deaf in Hartford, Connecticut, by the members of the faculty of that school, which is the first free public school for the deaf in America. Although the journal received the approval of the administrative school authorities, the periodical was first entirely sponsored by the members of the faculty. After two years the ANNALS was discontinued for some months but was revived by the members of the Convention of American Instructors of the Deaf in their first meeting in New York, N. Y., in 1850.

In April, 1861, the publication ceased because of the War Between the States, inasmuch as the membership of the Convention was made up of northerners and southerners in almost equal proportion. In September, 1868, the AMERICAN ANNALS OF THE DEAF resumed publication with the editorial offices on Kendall Green, in Washington, D. C., where it has since remained.

The AMERICAN ANNALS OF THE DEAF is the official organ of the Conference of Executives of American Schools for the Deaf, which was organized in 1868, and of the Convention of American Instructors of the Deaf, founded in 1850. According to the Library of Congress it is the oldest educational publication in the United States still in existence. It is also the oldest journal on the education of the deaf in the world.

The ANNALS is published five times a year, being issued in September, November, January, March, and May. The subscription price is $4.00 a year, payable in advance. If five or more copies of the ANNALS are sent to one address, the subscription price is $3.50 a year. Single numbers sell for seventy-five cents, except for the January number which sells for $2.00. Back issues are available for 1847, 1848, 1849, 1857, and from September, 1868, to the present. Indexes for 1847–1875, 1876–1885, 1886–1895, 1896–1905, are available at $2.00 each. Indexes for 1906–1915, 1916–1925, 1926–1935, 1935–1945, were issued as regular numbers of the ANNALS. All back issues prior to 1930 sell for $1.00 each. All requests for subscriptions or for back numbers should be addressed to Editor, AMERICAN ANNALS OF THE DEAF, Gallaudet College, Washington 2, D. C.

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